

REMARKS

The application has been amended to adopt a new title which is more descriptive of the invention.

The specification has been amended to delete the references to the claims.

Attached to this Amendment are new drawings, each of which has been labeled "Replacement Sheet". These drawings each include a separate identification of the Figures as required by the Examiner.

In paragraph 7 of the Office Action, claims 1, 2 and 4 were rejected under 35 U.S.C. §103(a) as being unpatentable over White et al. (White) or Omori et al. (Omori) in view of Kim.

Reconsideration is requested.

The White apparatus comprises a conical wave guide coupling 8 which contains a dielectric lens 9. The dielectric lens 9 is designed to transmit microwaves and as such it is not adapted to reflect microwaves. The dielectric lens 9 does not reflect microwaves from chamber 12 using dielectric lens 9.

The claims before the Examiner point out a method where the apparatus has a metal reflector provided in the horn shaped propagation path of the microwave energy; the microwave energy is reflected in the oven because any microwave energy that moves towards the propagation path is reflected back into the oven. This concept is not disclosed by the White patent.

The Omori patent describes a device where the antenna 24 is a flat plate and antenna 240 has a horizontal portion 241 and a bent portion 242. Antenna 240 is mounted at the corresponding position of matching portions 23B and 23C. Antenna 24 and 240 are capable of reflecting microwaves that are directed toward the oven from the propagation path to introduce microwaves into the

oven. However, antenna 24 and 240 are not capable of functioning as reflectors of microwaves which are reflected from the oven to the propagation path.

The Kim patent discloses a concept of providing a reflector matching device 16 but does not disclose anything about its shape, material or structure. It was known in the prior art to use board-shaped reflectors but with the use of these reflectors it was impossible to reduce the occurrence rate of the reflective waves which return back to a microwave oscillator. This situation required that an isolator be used in order to prevent the reflected microwaves from reaching the oscillator.

The claimed method makes it possible to greatly reduce the occurrence of reflective waves that reach the oscillator from approximately 35% to 4-7%. The result of this is eliminate the necessity to use an isolator.

None of the cited references contains any teaching that supports the combination of the references in the manner in which they have been applied. For these reasons, it is requested that this ground of rejection be withdrawn.

An early and favorable action is earnestly solicited.

Respectfully submitted,



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REPLACEMENT SHEET
Serial No. 09/672,386 Art Unit 3742

FIG. 1 (a)

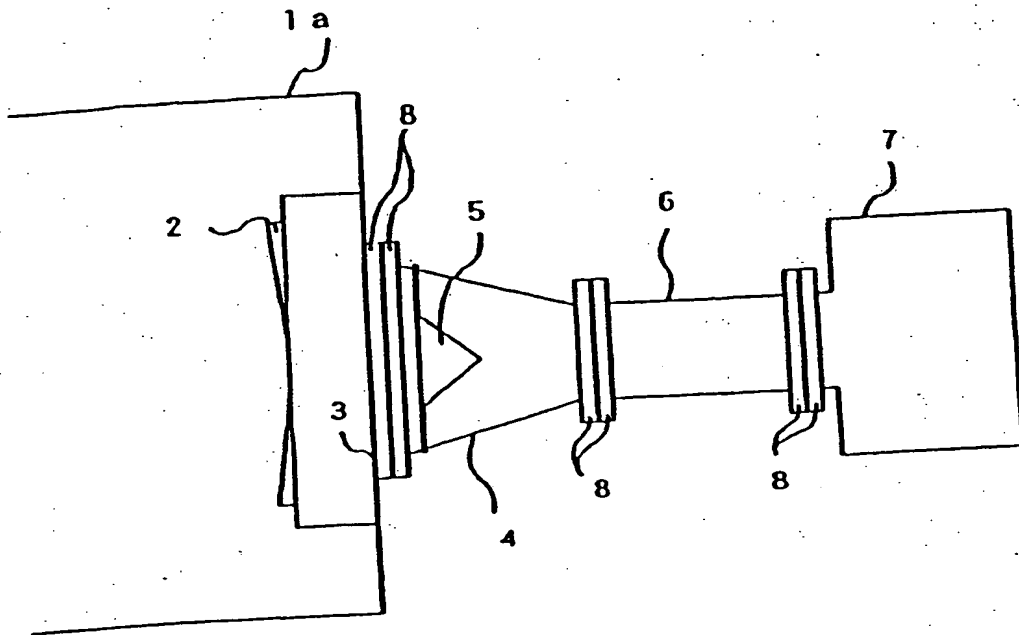


FIG. 1 (b)

